1:Spier E-5 (1929-1932) 1933 NT15 River Yumans NT15
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372 used. They did not make short travelling sets, like the Havasupai. The drill was called aun,ĭmĭk,ai' or a'au'giă'm, "fire
[192] shooter"; the hearth had no name; tinder was hanav^{a}su't.

A strike-a-light (augwĭnyata'vȧ, "fire striker") was used when
[484] travelling; striking flint against quartz. A rolled cotton cord was carried for tinder in a hollow cow horn. The use of the strike-a-
[173] light and this tinder horn was said to be ancient but I am dubious. For one thing, I was told the horn was anciently that of a mountain sheep, but it is clear that they would not use the horn of this animal under any circumstances. The slow-match for carrying fire was unknown.[27]

412 Of *stone knives* (^{a}xȧkwĭ', n,ĭxakwĭ', ^{a}viru'v^{a}, ḳwarȧo') all that is known is that these were made of dark obsidian (kwalacau') found near the Salt River, where it was rare. This may have been flint rather than obsidian, because it was said also to have been used for striking fire. The informant knew nothing of their handles, nor if the blade was set in the side of the handle scalpel-wise.

Stone axes were not made, and those found in nearby ruins were used primarily to dress metates to shape.

Ladles were made of wood as well as clay. Wooden ladles may
415 always have been of mesquite which is sufficiently dense to carve nicely. Several seen had small circular bowls, conical below; another an elliptical bowl, rounded below; both having long straight handles in the plane of the bowl (Pl. XIV, *a*, *b*).[28] These were about a foot to sixteen inches in length. I am inclined to
[114] agree with Russell that wooden ladles, at least those with conical
[177] bowls, were a recent acquisition. He states that they were derived from the Mexicans through the Papago.[29] The ladle with the conical bowl is certainly like old European forms. Wood-
[322] working was little developed: wooden bowls were not made.

[27] But Garcés' Halchidhoma travelling companion in June 1774 "carried a firebrand in one hand all the way [Ehrenberg to Agua Caliente], and it did not go out" (Bolton, *Anza's California Expeditions*, II, 387). Since it was summer, this must have been for the purpose of starting camp fires, not the torch carried for warmth by other lower Colorado Yumans.

[28] Washington State Museum, Nos. 2–11872 (or 73) and 2–11871, respectively.

[29] *Pima Indians*, p. 101.